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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,535	11/20/2003	Heng-Chien Chen	T-1278	3457

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NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION
P.O. BOX 506
MERRIFIELD, VA 22116

EXAMINER

NGUYEN, THANH T

ART UNIT	PAPER NUMBER
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2144

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/23/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/23/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/719,535

Applicant(s)

CHEN, HENG-CHIEN

Examiner

Tammy T. Nguyen

Art Unit

2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE (3) MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.



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Detailed Office Action

1. This action is in response to most recent papers received.
2. Claims 1-20 have been examined.

Specification

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Ki-Chul Kim, Publication No. US 2001/0046215 A1 (herein referred to as "Win").
7. As to claim 1, Kim discloses the invention substantially as claimed, Kim discloses a method of establishing a virtual intranet over the Internet based on a digital closed network constructed from at least one network private branch exchange (PBX) having an identification method and storing at least one published IP address, extension numbers and virtual IP addresses corresponding to the extension numbers; and a key telephone system that is composed of a plurality of extensions (20), the method comprising the steps of: registering each extension to the telephone exchange whereby each extension has an own extension number [see paragraph 0035] (*when the registered mobile terminal MT330 and Mtn 332, a call monitor 109 allows the users of the mobile terminal to user them as an extension telephone set*); and the published IP address [see paragraph 0036] (*the public/private communication*) linking at least one registered extension to the Internet [see paragraph 0045] (*the public/private communication service can exchange data from IP network*); using the published IP address as a destination IP address [see paragraph 0039] (the extension

mobile terminal can communicate with other mobile terminals and private BTS functions provided by the public/private communication service); and linking at least one registered extension back to the network PBX whereby the at least one registered extension and the network PBX connected to multiple other extensions are constructed to the virtual intranet over the Internet [see fig.2, and paragraph 0077].

8. As to claim 2, Kim discloses the invention as claimed, in the linking at least one registered extension to the Internet step the at least one registered extension links to the Internet through a network device
9. As to claim 3, Kim discloses the invention as claimed, wherein the network device is a modem [see paragraph 0081].
10. As to claim 4, Kim discloses the invention as claimed, wherein the network device is an XDSL [see paragraph 0059] .
11. As to claim 5, Kim discloses the invention as claimed, wherein in the linking at least one registered extension to the Internet step the at least registered extension links to Internet through a wireless network device linked to the Internet [see paragraph 0077].

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - a. A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 6-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ki-Chul Kim, (hereinafter Kim) Publication No. US 2001/0046215 A1 in view of Kiyokazu Otsuka., (hereinafter Otsuka) Publication No. US 2003/0016807 A1.
14. As to claim 6, Kim does not explicitly disclose the invention as claimed, the network PBX further having a function of two-way converting, wherein the telephone exchange converts external voice signals from the network PBX connected to PSTN to a form of voice packets or to restore the voice packets to the voice signals.
15. In the same field of endeavor, Otsuka discloses (e.g., voice codec designating system). Otsuka discloses the network PBX further having a function of two-way converting, wherein the telephone exchange converts external voice signals from the network PBX connected to PSTN to a form of voice packets or to restore the voice packets to the voice signals [see paragraph 0065, 0066, and 0067] (*a voice signal sent from the extension telephone set 110 is converted or encoded into a voice code by the voice converter of the VoIP*).
16. Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Otsuka's teachings of a voice codec designating system with the teachings of Kim, to have both converter from voice signal to the voice packet for the purpose of providing wide bandwidth and having a high compression ratio in the case of a bad channel situation or desired voice quality [see paragraph 0012].

17. As to claim 7, Kim discloses the invention substantially as claimed, Kim discloses including a virtual intranet comprising: one network private branch exchange (PBX) wherein the network PBX stores extension numbers, virtual IP addresses respectively corresponding to each extension number and at least one published IP address [see paragraph 0036] (*the public/private communication*) and is set up as an identification [see paragraph 0035] (*when the registered mobile terminal MT330 and Mtn 332, a call monitor 109 allows the users of the mobile terminal to user them as an extension telephone set*) method; and multiple extensions connected to the network PBX to form the closed network [see fig.2], whereby voice, data and video are able to be transmitted over the closed network, wherein each extension obtains an own extension number [see paragraph 0077], the virtual IP address and the published IP address from the identification method when the extension is connected to the network PBX [see fig.2 MT1-MTn connect to IP-PBX]; whereby each extension is able to link to the network PBX over the Internet when the extension links to Internet by using the published IP address as a destination IP address [see paragraph 0039] (*the extension mobile terminal can communicate with other mobile terminals and private BTS functions provided by the public/private communication service*). However, Kim does not explicitly discloses one network private branch exchange having a voice packet converter.
18. In the same field of endeavor, Otsuka discloses (e.g., voice codec designating system). Otsuka discloses one network private branch exchange having a voice

packet converter [see paragraph 0066, and 0067] (*the voice code is transmitted in the form of a packet through the IP network to the private branch exchange*).

19. Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Otsuka's teachings of a voice codec designating system with the teachings of Kim, to have one network private branch exchange having a voice packet converter for the purpose of providing wide bandwidth and having a high compression ratio in the case of a bad channel situation or desired voice quality [see paragraph 0012].
20. As to claim 8, Kim discloses the invention as claimed, wherein the network PBX comprises: a main controller stored with multiple extension numbers, the virtual IP address and set up with the identification method; and a packet switch having at least two network ports for IEEE 802.3 protocol to connect the extensions, wherein the packet switch is set up with the published IP address [see paragraph 0050] .
21. As to claim 9, Kim does not discloses the invention as claimed, wherein the network PBX further comprises a packet processing unit for two-way converting connected between the main controller and an extra PBX for PSTN [see Otsuka, fig.1].
22. As to claim 10, Kim discloses the invention as claimed, wherein each extension comprises: wherein the controller stores an own extension number and the own virtual IP address from the main controller and the published IP address [see paragraph 0077] (*the manager 109 determines in the visitor location register whether the mobile terminal MT330-Mtn 332 is registered mobile terminal or not*); a first network connecting interface connecting between the controller and one of the

network device [see fig.4, controller 225 connect with 207]; and a second network connecting interface connecting between the controller and the network PBX [see fig4 IP-PBX connect with PSTN/ISDN]. However, Kim does not explicitly disclose a controller with the two-way converting function, wherein the controller is able to convert voice signals to the form of voice packets, is able to restore the voice packets to the voice signals, and handset is able to broadcast voice signals output from the controller .

23. In the same field of endeavor, Otsuka discloses (e.g., voice codec designating system). Otsuka discloses a controller with the two-way converting function, wherein the controller is able to convert voice signals to the form of voice packets, is able to restore the voice packets to the voice signals, and handset is able to broadcast voice signals output from the controller [see paragraph 0066, and 0067] (*the voice code is transmitted in the form of a packet through the IP network to the private branch exchange*).
24. Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Otsuka's teachings of a voice codec designating system with the teachings of Kim, to have a controller with the two-way converting function, wherein the controller is able to convert voice signals to the form of voice packets, and is able to restore the voice packets to the voice signals, and handset is able to broadcast voice signals output from the controller, for the purpose of providing wide bandwidth and having a high

compression ratio in the case of a bad channel situation or desired voice quality [see paragraph 0012].

25. As to claim 11, Kim discloses the invention as claimed, wherein the first network connecting interface is connected to the network device through a network interface card installed in a network device [see paragraph 0074].
26. As to claim 12, Kim discloses the invention as claimed, wherein each extension further comprises a bridge connected between a first network connecting interface and the second network connecting interface to control transmission flow [see paragraph 0074].
27. As to claim 13, Kim discloses the invention as claimed, wherein the controller further connects to a display, a key set and an image capturing device [see fig.3].
28. As to claim 14, Kim discloses the invention as claimed, wherein the network PBX further comprises at least one wireless network port for connecting to at least one wireless access point [see paragraph 0047 and fig.2 of Kim].
29. As to claim 15, Kim discloses the invention as claimed, wherein each extension comprises: wherein the controller stores an own extension number and the own virtual IP address from the main controller and the published IP address [see paragraph 0077] (*the manager 109 determines in the visitor location register whether the mobile terminal MT330-Mtn 332 is registered mobile terminal or not*); a first network connecting interface connecting between the controller and one of the network devices [see fig.4, controller 225 connect with 207, and IP-PBX connect with PSTN/ISDN]; and a wireless network port for a wireless card connected between

the controller and the wireless access point [see paragraph 0043 and see fig.2].

However, Kim does not explicitly disclose a controller with the two-way converting function, wherein the controller is able to convert voice signals to the form of voice packets, and is able to restore the voice packets to the voice signals and handset is able to broadcast voice signals output from the controller.

30. In the same field of endeavor, Otsuka discloses (e.g., voice codec designating system). Otsuka discloses a controller with the two-way converting function, wherein the controller is able to convert voice signals to the form of voice packets, and is able to restore the voice packets to the voice signals and handset is able to broadcast voice signals output from the controller [see paragraph 0066, and 0067] (*the voice code is transmitted in the form of a packet through the IP network to the private branch exchange*).
31. Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Otsuka's teachings of a voice codec designating system with the teachings of Kim, to have a controller with the two-way converting function, wherein the controller is able to convert voice signals to the form of voice packets, is able to restore the voice packets to the voice signals and handset is able to broadcast voice signals output from the controller, for the purpose of providing wide bandwidth and having a high compression ratio in the case of a bad channel situation or desired voice quality [see paragraph 0012].

32. As to claim 16, Kim discloses the invention as claimed, wherein each extension comprises a second network connecting interface connecting between the controller and the network PBX [see paragraph 0077].
33. As to claim 17, Kim discloses the invention as claimed, wherein the first network connecting interface is connected to the network device through a network interface card installed in a network device [see paragraph 0074].
34. As to claim 18, Kim discloses the invention as claimed, wherein each extension further comprises a bridge connected between a first network connecting interface and the second network connecting interface to control transmission flow[see paragraph 0064].
35. As to claim 19, Kim discloses the invention as claimed, wherein the controller further connects to a display, a key set and an image capturing device [see paragraph 0050].
36. As to claim 20, Kim discloses the invention as claimed, wherein the main controller further comprises a network backbone port for connecting a bridge through an Ethernet backbone [see fig.1].

Conclusion

37. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tammy T. Nguyen whose telephone number is 571-272-3929. The examiner can normally be reached on Monday - Friday 8:30 - 5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ***William Vaughn*** can be reached on 571-272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2144

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



March 10, 2007



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